



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Makoto SASAKI

Group Art Unit: 2625

Application No.: 10/777,378

Examiner: N. TYLER

Filed: February 13, 2004

Docket No.: 118626

For: NUMERICAL PROCESSING APPARATUS, COLOR PROCESSING APPARATUS,
NUMERICAL PROCESSING PROGRAM, COLOR PROCESSING PROGRAM,
AND STORAGE MEDIUM

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This request is being filed with a Notice of Appeal and Petition for Extension of Time. Review of the January 29, 2008 Final Rejection is requested for the reasons set forth in the attached five or fewer sheets.

Should any questions arise regarding this submission, or the Review Panel believe that anything further would be desirable in order to place this application in even better condition for allowance, the Review Panel is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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REMARKS

Claims 1-14 are pending in this application. The Office Action rejects claims 1 and 3-14 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0072018 to Sasaki et al. (hereinafter "Sasaki"). Further, the Office Action rejects claim 2 under 35 U.S.C. §103(a) as being unpatentable over Sasaki, in view of U.S. Patent No. 6,919,972 to Kumada et al. (hereinafter "Kumada"). These rejections are respectfully traversed.

The Office Action asserts that Sasaki can reasonably be relied upon as teaching the combinations of all of the features positively recited in the pending independent claims. The analysis of the Office Action fails for at least the following reasons.

Claim 1 recites a numerical processing apparatus for deciding correspondence from output points in an output space of m dimensions to input points in an input space of n dimensions wherein m is smaller than n , the numerical processing apparatus comprising: a limited output point group generation unit that generates limited output points in the output space respectively corresponding to limited input points satisfying a predetermined constraint condition that is set in the input space in advance, to generate a plurality of limited pairs each consisting of a limited input point and a corresponding limited output point; and an input point element determination unit that determines at least one element of the input point satisfying the constraint condition, when an output point is given, on the basis of the plurality of limited pairs. Independent claims 5 and 11-14 recite similar features. Sasaki does not teach such a specific combination of features.

Sasaki teaches calculating an optimum black colorant amount which satisfies the total colorant amount with respect to typical $L^*a^*b^*$ points, as discussed in paragraphs [0035]-[0038]. Here, the optimum colorant amount is calculated based on a model capable of predicting an optimum colorant from $L^*a^*b^*$, as discussed in paragraph [0035]. In other

words, Sasaki teaches that a black colorant is experimentally calculated based on points from a single $L^*a^*b^*$ color space.

In this manner, Sasaki does not generate $L^*a^*b^*$ data points, but merely selects $L^*a^*b^*$ data points from preexisting data points. Specifically, Sasaki discloses a very detailed manner by which, through experimentation, first, second, and third optimum black colorant amounts in all color gamuts are sought based on approximation to an achromatic color. (see, e.g., paragraph [0015]). Despite the assertions to the contrary in the Office Action, particularly in the Response to Arguments section, Sasaki does not teach generating a limited group using a predetermined constraint condition set in the input space. The alleged predetermined constraint condition of a "color area satisfying coverage limitation" is not the type of predetermined constraint condition considered to satisfy the requirement of the subject matter of the pending claims.

The subject matter of the pending claims positively recites determining at least one element of the input point satisfying the constraint condition, when an output point is given, on the basis of the plurality of limited pairs. Further, limited pairs comprise an input point and an output point, as positively recited in the pending claims. In this way, input points and output points may be used in determining at least one element of the input point, as further discussed on page 8, lines 10-18 of Applicant's disclosure.

In Sasaki, it does not appear that an output point is given. Therefore, the methodology of Sasaki does not determine at least one element of the input point satisfying the constraint condition, when an output point is given, as is positively recited among, other features, in the independent claim. The attempts by the Office Action to read the features disclosed in Sasaki to correspond to the subject matter of the pending claims requires, as can be seen from the Office Action, that the positively recited claim features must be overly broadly paraphrased in order to find these features taught by the reference.

Also, as is specifically noted by the Office Action, at least at page 4, Sasaki states the YMCK signal calculating section 16 predicts YMC by using the $L^*a^*b^*$ input to the optimum black colorant amount determining section 15 in the optimum black color amount calculated by the optimum black colorant amount determining section 15, and determines YMCK by the predicted YMC and optimum black colorant amount. Unfortunately, what the Office Action attempts to do then is to characterize the YMCK signal that is calculated by using the $L^*a^*b^*$ input specifically discussed in the Sasaki reference to attempt to assert that, later in the same quotation, the determined YMCK is considered by the Examiner to correspond to the input or input space (see the parentheticals in the Office Action) and that the $L^*a^*b^*$ specifically disclosed input, is somehow considered to correspond to the "(output space) recited in the pending claims.

In other words, on its face, the Office Action takes an overly strained approach in attempting to force features specifically disclosed in Sasaki to correspond to features that are alleged to anticipate the combination of all of the features recited in the pending claims. Certainly it is not proper in a situation where a reference specifically discloses calculation of an output based on some input to arbitrarily reverse that methodology in order to find that the disclosed output signal can be alleged to correspond to an input, which is then apparently in some manner reverse manipulated in order to produce what the reference describes as an input, and the features recited in the pending claims delineate specifically as an output. In this manner, it appears as though the analysis of the Office Action attempts to improperly reverse the methodology disclosed in Sasaki by mischaracterizing the subject matter of the pending claims and misconstruing, in fact reverse construing, the disclosure of Sasaki in a manner that facilitates an anticipation analysis under 35 U.S.C. §102.

Sasaki teaches experimentally calculating a black colorant amount based on points in an input $L^*a^*b^*$ color space to determine an output CMYK color space. It is improper on its

face to manipulate the positive disclosures of Sasaki to meet the broadly paraphrased construction of the pending claims. The Sasaki reference cannot reasonably be considered to have suggested the combinations of all of the features positively recited in the pending claims upon which the Office Action relies upon this reference as teaching. Kumada fails to overcome the deficiencies in the application of Sasaki to the subject matter of the pending claim, as discussed above.

For at least the above reasons, Sasaki does not teach the combinations of all of the features positively recited in independent claims 1, 5 and 11-14. Additionally, no permissible combination of Sasaki and Kumada can reasonably be considered to teach, or to have suggested, the combinations of all of these features. The applied references above also cannot reasonably be considered to teach, or to have suggested, the combinations of all of the features positively recited in claims 2-4 and 6-10, at least for their dependence on allowable independent claims, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-14 under 35 U.S.C. §102(e) as being anticipated by Sasaki, or under 35 U.S.C. §103(a) as being unpatentable over Sasaki in view of Kumada, are respectfully requested.